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Lectotype Designation and new Synonymy for Afrotropical and Oriental Bees of the Genus *Colletes* LATR. (Hymenoptera, Apidae, Colletinae)

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A b s t r a c t : The type specimens of 90 afrotropical and 13 oriental *Colletes* species are examined and lectotypes are designated. They belong to 56 afrotropical and 8 oriental species. The type specimens of *C. opacicollis* FRIESE 1909 and *C. parafodiens* FRIESE 1925 from southern Africa could not be found and are probably lost.

The new replacement name *Colletes tulbaghensis* nom. nov. is proposed for *Colletes cinereus* FRIESE 1925 that is a junior secondary homonym of *Apis cinerea* GEOFFROY in FOURCROY 1785 (= *Colletes cunicularius* [LINNAEUS 1761]).

The following names are newly established synonyms: *C. brevitectus* COCKERELL 1922 syn. nov. = *C. annulicornis* MORAWITZ 1876; *C. dentatus* CAMERON 1898 syn. nov. = *C. dudgeonii* BINGHAM 1897; *C. nursei* CAMERON 1907 syn. nov. and *C. deesensis* COCKERELL 1922 syn. nov. = *C. lacunatus* DOURS 1872; *C. saevissimus* (CAMERON 1897) comb. nov., syn. nov. and *C. phaedra* (CAMERON 1897) comb. nov., syn. nov. = *C. reticulatus* (CAMERON 1897) comb. nov.; *C. honoratus* COCKERELL 1922 syn. nov. = *C. sodalis* (CAMERON 1897) comb. nov.; *C. subrufipes* COCKERELL 1946 syn. nov. and *C. odontogaster* COCKERELL 1946 syn. nov. = *C. antecessus* COCKERELL 1932; *C. volkmanni* FRIESE 1909 syn. nov., *C. martini* COCKERELL 1919 syn. nov., *C. opacigenalis* FRIESE 1925 syn. nov., *C. comptoni* COCKERELL 1932 syn. nov., *C. politulus* COCKERELL 1946 syn. nov. and *C. mediolucens* COCKERELL 1946 syn. nov. = *C. capensis* CAMERON 1905; *C. rufipennis* COCKERELL 1946 syn. nov. and *C. mitescens* COCKERELL 1933 syn. nov. = *C. cinctellus* FRIESE 1925; *C. glaucescens* COCKERELL 1932 syn. nov., *C. suprafuscus* COCKERELL 1946 syn. nov. and *C. drakensbergensis* COCKERELL 1947 syn. nov. = *C. claripes* FRIESE 1925; *C. hirsutissimus* COCKERELL 1946 syn. nov. = *C. fasciatus* SMITH 1853; *C. martini hololeucus* COCKERELL 1947 syn. nov. = *C. fascicularis* COCKERELL 1932; *C. breviceps* FRIESE 1925 syn. nov., *C. bevisi* COCKERELL 1932 syn. nov. and *C. rugibasis* COCKERELL 1936 syn. nov. = *C. fusconotus* COCKERELL 1919; *C. genalis australis* COCKERELL 1946 syn. nov. = *C. genalis* FRIESE 1909; *C. zonaturus* COCKERELL 1946 syn. nov. = *C. hirtibasis* COCKERELL 1936; *C. pusillus* NOSKIEWICZ 1936 syn. nov. = *C. inconspicuus* KIRBY 1900; *C. latibasis* COCKERELL 1936 syn. nov. = *C. malleatus* COCKERELL 1933; *C. opaciventris* FRIESE 1925 syn. nov. = *C. malmus* (CAMERON 1905) comb. nov.; *C. transvalensis* FRIESE 1925 syn. nov. = *C. marleyi* COCKERELL 1919; *C. arnoldi* COCKERELL 1946 syn. nov. = *C. missionum* COCKERELL 1932; *C. lactescens* COCKERELL 1946 syn. nov. = *C. nanellus* COCKERELL 1945; *C. resedae* COCKERELL 1934 syn. nov. = *C. perezii* MORICE 1904; *C. peropacus* COCKERELL 1946 syn. nov. = *C. phenax* COCKERELL 1946; *C. lineolatus* COCKERELL 1946 syn. nov. = *C. ruficollis* FRIESE 1925; *C. ruwenzoricus* COCKERELL 1936 syn. nov., *C. kivuicola* COCKERELL 1943 syn. nov. and *C. andersoni* COCKERELL 1946 syn. nov. = *C. rufitarsis* FRIESE 1909; *C. albifrons* COCKERELL 1946 syn. nov. = *C. tinctulus* COCKERELL 1937 stat. nov.; *C. bukavanus* COCKERELL 1936 syn. nov., *C. montis* COCKERELL 1946 syn. nov. and *C. beniensis* COCKERELL 1946 syn. nov. = *C. opacus* FRIESE 1925; *C. callaspis* COCKERELL 1936 syn. nov. and *C. turneri* COCKERELL 1937 syn. nov. = *C. zuluensis* FRIESE 1925;

Key words : Nomenclature, lectotype designation, new synonymy, *Colletes*, Apidae, Hymenoptera, afrotropical, oriental.

Introduction

The afrotropical and oriental species of the bee genus *Colletes* have never been reviewed. The vast majority of the species descriptions are short and insufficient for a reliable identification. The most important morphological characters for species differentiation, such as the genitalia and the 7th ventral plate of the males and the sculpture of the head, mesonotum and abdomen, were neglected or merely described superficially. For this reason it was necessary to study the type material of all species as a first step towards a revision of the Old World species of this bee genus.

A total of 92 species from subsaharan Africa and 13 from India and adjacent countries were described. Except for two species, I was able to examine the types of all species. As a consequence of the study of type specimens and additional material from various collections, it was possible to find new synonyms. In the afrotropical region, 56 species, and in the oriental region, eight species are recognized as valid taxa. The number of undescribed *Colletes* is nearly as high as the number of known species. Especially in southern Africa, a high number of closely related species occur that are often difficult to separate. Apparently some of them are rare and only known from a few or even a single specimen. Because of the fairly high degree of sexual dimorphism in some species groups and their rarity, it is often very difficult to recognize the corresponding sex. Additionally the degree of morphological variation of the males is distinctly higher than in the females. Where males and females of a species are not definitely known (e.g. by having been collected at the same locality), it is difficult to identify them by morphological characters only. In my experience the most useful characters beside the general appearance (body proportions, colour and length of pilosity [rapidly fading during the flight period], main sculptural characters of the integument [e.g. chagrination present/absent, size of punctuation]) are the sculpture and proportions of the dorsal part of the propodeum. The latter seems to be the most constant feature shared by male and female. Because of the difficulties to identify the corresponding sex, the subsequently mentioned species that are believed to be valid taxa at the present state of knowledge might be recognized as synonyms as soon as more material is available. Most of the species of the poor oriental *Colletes* fauna seem to be closely related to, or identical with, palaearctic species. For this reason short preliminary comments are given on the systematic status of the oriental species and their relationships to palaearctic species-groups. Detailed descriptions and identification keys for all species mentioned in this paper will be published later.

A specimen has been accorded holotype status when the holotype is explicitly identified or the species group name definitely based on a single specimen. If no definite information was available to identify the holotype, a lectotype and sometimes paralectotypes were designated from the extant type series. For species described by T.D.A. Cockerell, see the regulations of DALY & ELSE (1988). Unless otherwise indicated, the labels are rectangular and on white paper with black printed text. Written additions on printed labels (e.g. date of collecting) are not indicated separately. The information on the labels is read from top to bottom and separated by "/". The species described by T.D.A. Cockerell bear his hand written label with the species group name, "CkII" (usually underlined), and "TYPE". Species of the afrotropical and oriental region are listed separately and in alphabetical order. Abbreviations of the institutions are following ARNETT et al. (1993):

AMNH.....American Museum of Natural History, New York (J.G. Rozen, Jr.)
 BMNH.....Natural History Museum, London (G. Else, S. Lewis, C. Taylor)
 MNHM.....Museum National d'Histoire Naturelle, Paris (J. Casevitz-Weulersse)
 NHMW.....Naturhistorisches Museum, Wien (S. Schödl)
 NHRs.....Naturhistoriska Riksmuseet, Stockholm (L.-A. Janzon)
 OXUM.....Hope Entomological Collections, University Museum Oxford (C. O'Toole)
 SAMC.....South African Museum, Cape Town (M. Cochrane, V.B. Whitehead)
 SMFD.....Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt a.M. (J.-P. Kopelke)
 USNM.....U.S. National Museum of Natural History, Washington, DC (R.J. McGinley)
 ZMHB.....Zoologisches Museum der Humboldt Universität, Berlin (F. Koch)

Oriental species

Colletes annulicornis MORAWITZ 1876

Colletes annulicornis MORAWITZ 1876 - MORAWITZ 1876: 266-267.

Colletes brevitectus COCKERELL 1922 - COCKERELL 1922b: 364. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.339 / *Colletes brevitectus* CKLL. Type / (typewritten): Quetta, 8.02 / T.D.A. Cockerell. B.M. 1936-415 / *Colletes* ♂ (*brevitectus* CKLL. =) *annulicornis* MOR., det. D.B. Baker, 1993" (BMNH).

Dr. D.B. Baker correctly identified *C. brevitectus* as a junior synonym of the central palaearctic *C. annulicornis* but never published his identification.

Colletes comberi COCKERELL 1911

Colletes comberi COCKERELL 1911 - COCKERELL 1911: 234.

Holotype (♀) "B.M. Type Hym. 17.a.335 / *Colletes comberi* CKLL. Type / Bombay Presidency. pres. by E. Comber. 1910-255 / Krchi / *Colletes* ♀ *nanus* FR., D.B. Baker det." (BMNH).

Colletes comberi belongs to a group of small species, densely covered with white hair. Numerous species from this group are described from Central Asia. Most of them, especially the females, are difficult to identify and poorly studied. Dr. D.B. Baker labelled the type specimen of *C. comberi* as *C. nanus* FRIESE, a species only known from North Africa and the Near East. I compared both species and I am in doubt about their identity. Unless more material is available, the taxonomic status of *C. comberi* remains unclear.

Colletes dudgeonii BINGHAM 1897

Colletes dudgeonii BINGHAM 1897 - BINGHAM 1897: 409.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.334 / (in handwriting): *Colletes dudgeonii* BINGH. Type / Sikkim, Runjut Valley, 1000 ft., 4-94, Bingham Coll. / Col. C.T. Bingham 96-30" (BMNH).

Colletes dentata CAMERON 1898 - CAMERON 1898: 49-51. **syn. nov.**

Lectotype (♂) (designated here): "(in handwriting, ink): *Colletes dentata* CAM. Type, Poona / (typewritten): 983." (OXUM).

The type locality mentioned by Bingham in the description of this species is "Rangit Valley, 4000 ft." It differs from the data given on the label (Runjut Valley, 1000 ft.). *C.*

dudgeonii is an unusual species and, at the present state of knowledge, no close relatives are known among the palaearctic species. The thorax is densely covered with coarse punctures. The abdomen is finely chagrinated and dull.

***Colletes idoneus* COCKERELL 1922**

Colletes idoneus COCKERELL 1922 - COCKERELL 1922b: 363-364.

Holotype (♂) "*Colletes* sp. inc. / (typewritten): Quetta, 7.02 / (red label): Type No. 55600 USNM / *Colletes idoneus* CKLL. Type" (USNM).

Colletes idoneus belongs to the *caspicus*-group (sensu NOSKIEWICZ 1936). The centre of diversity of this group is the arid region of Central Asia. Most of the species show only slight morphological differences and are often difficult to distinguish. The length of the gonostylus in *C. idoneus* is shorter than its basal width, a character shared only with *C. morawitzi* NOSKIEWICZ. But the latter has a different 7th ventral plate.

***Colletes lacunatus* DOURS 1872**

Colletes lacunatus DOURS 1872 - DOURS 1872: 297.

Colletes braccatus PÉREZ 1895 - PÉREZ 1895: 63.

Colletes grandis FRIESE 1898 - FRIESE 1898: 308-309.

Colletes nursei CAMERON 1907 - CAMERON 1907: 284-286. **syn. nov.**

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.340 / (in handwriting, ink): *Colletes nursei* CAM. Type, India / (typewritten): Ferozepore, 3.98 / Cameron Coll. 1909-182" (BMNH).

Colletes deesensis COCKERELL 1922 - COCKERELL 1922a: 248-249. **syn. nov.**

Holotype (♀) "(typewritten): Deesa, 3.00. / *Colletes* sp. inc. / (red label): Type No. 55348 USNM / *Colletes deesensis* CKLL. Type ♀" (USNM).

The morphology of specimens from India fully agree with material from North Africa. The type locality of *C. deesensis* today is called Disa (72°10'E, 24°15'N), a town near the border to Pakistan.

***Colletes reticulatus* (CAMERON 1897) comb. nov.**

Andrena reticulata CAMERON 1897 - CAMERON 1897: 115.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.338 / (in handwriting, ink): *Andrena reticulata* CAM. Type, Masuri / P. Cameron Coll. 1914-110 / (label with blue frame): Lectotype ♀ *Andrena reticulata* CAM. 1897, DB Baker 1993" (BMNH).

Andrena saevissima CAMERON 1897 - CAMERON 1897: 115-117. **comb. nov., syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.336 / (in handwriting, ink): *Andrena saevissima* CAM. Type, Masuri / P. Cameron Coll. 1914-110 / (label with red frame): Holotype ♀ *Andrena saevissima* CAM. 1897, DB Baker 1993" (BMNH).

Andrena phaedra CAMERON 1897 - CAMERON 1897: 120-121. **comb. nov., syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.337 / (in handwriting, ink): *Andrena phaedra* CAM. Type, Masuri / P. Cameron Coll. 1914-110 / (label with red frame): Holotype ♂ *Andrena phaedra* CAM. 1897, DB Baker 1993" (BMNH).

Dr. D.B. Baker correctly labelled the above mentioned specimens as holotypes of *Andrena phaedra* and *Andrena saevissima* and as a lectotype of *Andrena reticulata* but failed to published his designations. There is a difference observed between the name of the type locality given on the labels and in the description: "Masuri" is written on the

label but in the description "Mussuri" is mentioned. It is a small town in the Himalaya north of Dehra Dun at 78°E and 30°30'N, mentioned under various names, and only on detailed maps.

Colletes reticulatus belongs to the *succintus*-group (sensu NOSKIEWICZ 1936) because the males have the typical round and deep pit on each side of the 6th sternite. The 7th ventral plate is of the same morphological type as the one of *C. succintus* (L.).

***Colletes sanctus* COCKERELL 1910**

Colletes sanctus COCKERELL 1910 - COCKERELL 1910: 241-242.

Holotype (♀) "B.M. Type Hym. 17.a.332 / *Colletes sanctus* CKLL. Type / Gyangtse. 13,000 ft. June 1904. Tibet Exped., H.J. Walton. 1905-172" (BMNH).

This species is a member of the *clypearis*-group (sensu NOSKIEWICZ 1936) and closely related to *C. sidemii* RADOSZKOWSKI. The main differences are that the genae of *C. sanctus* are longer and it lacks apical abdominal bands. The 7th ventral plates of the males of both species are similar.

***Colletes sodalis* (CAMERON 1897) comb. nov.**

Andrena sodalis CAMERON 1897 - CAMERON 1897: 121-122.

Lectotype (♂) (designated here): "(in handwriting, ink): *Andrena sodalicia* Cam. Type / (in red block letters): Mussoorie: Rothney / (typewritten): 1030. / (in handwriting): *A. phaedra* ♀ / (in handwriting): *Colletes* !" (OXUM).

Colletes honoratus COCKERELL 1922 - COCKERELL 1922b: 363. **syn. nov.**

Holotype (♂) "(typewritten): Simla, 9.98 / ♂ / (red label): Type No. 55601 USNM / *Colletes honoratus* CKLL. Type" (USNM).

The name of *C. sodalis* differs in the publication and on the determination label of the type specimen, perhaps caused by a printer's error. *Colletes sodalis* is a species of the *clypearis*-group (sensu NOSKIEWICZ 1936). The shape of the 7th ventral plate is of the same type as in *C. floralis* EVERSMAAN and very similar to *C. yasumatsui* HIRASHIMA & IKUDOME from Japan.

Afrotropical species

***Colletes abessinicus* FRIESE 1915**

Colletes latipes FRIESE 1915 - FRIESE 1915: 278-279.

Lectotype (♂) (designated here): "NO.-Afrika, Abessinien, Harrar 11, Kristensen / (in Friese's handwriting): *Colletes abessinicus* 1914 Friese det. / (red label): Type / Coll. Friese" (ZMHB). Paralectotypes (2♂♂) (designated here): see Lectotype (ZMHB).

***Colletes albohirtus* COCKERELL 1946**

Colletes albohirtus COCKERELL 1946 - COCKERELL 1945(1946): 838.

Holotype (♂) "B.M. Type Hym. 17.a.1418 / *Colletes albohirtus* CKLL. Type / S. Africa. R.E. Turner. Brit. Mus. 1928-542 / Cape Province: Matjesfontein. 14-27.xi.1928" (BMNH).

***Colletes antecessus* COCKERELL 1932**

Colletes antecessus COCKERELL 1932 - COCKERELL 1932: 120-121.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.354 / *Colletes antecessus* CKLL. Type / (in handwriting): Nieuwoudtville, C.P., Nov. 19, W.P.C. / B.M. 1932-324, T.D.A. Cockerell" (BMNH).

Colletes subrufipes COCKERELL 1946 - COCKERELL 1945(1946): 849-850. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1432 / *Colletes subrufipes* CKLL. Type / Cape Province. Ceres. 1-12.Nov.1924" (BMNH).

Colletes odontogaster COCKERELL 1946 - COCKERELL 1946: 109. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.2748 / *Colletes odontogaster* CKLL. Type / Mossel Bay, Cape Province. Dec. 1921 / S. Africa. R.E. Turner. Brit. Mus. 1922-25" (BMNH).

***Colletes aureocinctus* COCKERELL 1946**

Colletes aureocinctus COCKERELL 1946 - COCKERELL 1945(1946): 840.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.1413 / *Colletes aureocinctus* CKLL. Type / Cape Province: Matjesfontein, 6-15.x.1928 / S. Africa. R.E. Turner. Brit. Mus. 1928-480" (BMNH).

***Colletes capensis* CAMERON 1905**

Colletes? capensis CAMERON 1905 - CAMERON 1905: 235-236.

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.364 / (in handwriting, blue ink): *Colletes? capensis* CAM. Type, Cape Colony / P. Cameron Coll. 1914-110" (BMNH).

Colletes volkmanni FRIESE 1909 - FRIESE 1909a 121. **syn. nov.**

Lectotype (♂) (designated here): "SW. Afrika, Grotfontein, 1903, Volkmann / (in Friese's handwriting): *Colletes volkmanni* 1908 Friese det. / (red label): Type / Coll. Friese" (ZMHB). Paralectotypes (2♀) (designated here): 1♀ see Lectotype, 1♀ "Kl. Namaland, Steinkopf, L. Schultze S. / (red label): Type / (in Friese's handwriting): *Colletes volkmanni* 1908 Friese det. / Coll. Friese" (ZMHB).

Colletes martini COCKERELL 1919 - COCKERELL 1919: 191. **syn. nov.**

Colletes opacigenalis FRIESE 1925 - FRIESE 1925: 527. **syn. nov.**

Lectotype (♂) (designated here): "Bushmanld., Henkries, Lightfoot / (reverse side): Oct. 1911 / (in Friese's handwriting): *Colletes opacigenalis* 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

Colletes comptoni COCKERELL 1932 - COCKERELL 1932: 125. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.363 / *Colletes comptoni* CKLL. Type / (in handwriting): Whitehill, C.P., Nov. 26, Ckll. / B.M. 1932-324, T.D.A. Cockerell" (BMNH).

Colletes politulus COCKERELL 1946 - COCKERELL 1945(1946): 841-842. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1422 / *Colletes politulus* CKLL. Type / Cape Province: Matjesfontein. 1-6.xi.1928 / S. Africa, R.E. Turner. Brit. Mus. 1928-515" (BMNH).

Colletes mediolucens COCKERELL 1946 - COCKERELL 1945(1946): 848. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1430 / *Colletes mediolucens* CKLL. Type / S. Africa. R.E. Turner, Brit. Mus. 1920-497 / Ceres, Cape Province, Nov. 1920" (BMNH).

The type of *C. martini*, a male, could not be found in the collection of the BMNH although it is mentioned in the card-index under the type number 17.a.1445. I examined a female labelled by Cockerell as the "Cotype" from "Willowmore, Capland, Dr. H. Brauns, 15.10.99". The description of the female is based on this specimen. The species is without a doubt a junior synonym of *C. capensis*. A holotype of *C. martini* will be designated as soon as the male type specimen is found.

***Colletes cardiurus* COCKERELL 1946**

Colletes cardiurus COCKERELL 1946 - COCKERELL 1945(1946): 839.

Holotype (♀) "B.M. Type Hym. 17.a.1420 / *Colletes cardiurus* CKLL. Type / Cape Province, Matjesfontein, 6-15.x.1928 / S. Africa. R.E. Turner. Brit. Mus. 1928-480" (BMNH).

***Colletes cinctellus* FRIESE 1925**

Colletes cinctellus FRIESE 1925 - FRIESE 1925: 525.

Lectotype (♂) (designated here): "Mfongosi, Zulu L., W.E. Jones / (reverse side): Feb. 1914 / (in Friese's handwriting): *Colletes cinctellus* 1921 Friese det. / SAM-HYM, B 000121" (SAMC).

Colletes mitescens COCKERELL 1933 - COCKERELL 1933: 205-206. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.351 / *Colletes mitescens* CKLL. Type / Natal: National Park. 3-15.iii.1932, A. Mackie / T.D.A. Cockerell Exp. to Africa 1931. Pres. by Imp. Inst. Ent., B.M. 1932-291" (BMNH).

Colletes rufipennis COCKERELL 1946 - COCKERELL 1946: 107-108. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1436 / *Colletes rufipennis* CKLL. Type / S. Africa. R.E. Turner. Brit. Mus. 1924-177 / Port St. John, Pondoland. 1-17.Mar. 1924" (BMNH).

***Colletes claripes* FRIESE 1925**

Colletes claripes FRIESE 1925 - FRIESE 1925: 523-524.

Lectotype (♂) (designated here): "Cape T., Lightfoot, Jan. 1913 / (in Friese's handwriting): *Colletes claripes* 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

Colletes glaucescens COCKERELL 1932 - COCKERELL 1932: 124-125. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.358 / *Colletes glaucescens* CKLL. Type / (in handwriting): S. of Montagu Pass, C.P., Nov. 4, A.M. / Wembley Park. 8 m N. of Perth., 4.xi.1935" (BMNH).

Colletes suprafuscus COCKERELL 1946 - COCKERELL 1945(1946): 842-843. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1424 / *Colletes suprafuscus* CKLL. Type / Natal, Van Reenen, Drakensberg. Nov. 1926 / S. Africa. R.E. Turner. Brit. Mus. 1926-499" (BMNH).

Colletes drakensbergensis COCKERELL 1947 - COCKERELL 1946(1947): 202. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1440 / *Colletes drakensbergensis* CKLL. Type / Natal, Van Reenen, Drakensberg. Nov. 1926 / S. Africa. R.E. Turner. Brit. Mus. 1926-499" (BMNH).

***Colletes denudatus* COCKERELL 1946**

Colletes denudatus COCKERELL 1946 - COCKERELL 1945(1946): 839.

Holotype (♂) "B.M. Type Hym. 17.a.1419 / *Colletes denudatus* CKLL. Type / Cape Province; Matjesfontein, 6-15.x.1928 / S. Africa. R.E. Turner. Brit. Mus. 1928-480" (BMNH).

***Colletes durbanensis* COCKERELL 1919**

Colletes durbanensis COCKERELL 1919 - COCKERELL 1919: 192.

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.370 / *Colletes durbanensis* CKLL. Type / (in handwriting): E.C. Chubb, Durban, 11.3.17, Ac.No. 2045 / Brit. Mus. 1936-415. T.D.A. Cockerell" (BMNH).

***Colletes fasciatus* SMITH 1853**

Colletes fasciata SMITH 1853 - SMITH 1853: 4.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.341 / (in handwriting, ink): *Colletes fasciata* Sm. (Type) / Cape / Sm. Coll. 79.22 type / (red label): Lectotype ♀ *Colletes fasciata* Sm., 1853, des. Baker 1993" (BMNH).

Colletes hirsutissimus COCKERELL 1946 - COCKERELL 1945(1946): 837-838. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1417 / *Colletes hirsutissimus* CKLL. Type / S. Africa, R.E. Turner, 1920-342 / Lion's Head, Cape Town. Aug. 1920" (BMNH).

Dr. D.B. Baker correctly labelled the above mentioned specimen as the lectotype of *C. fasciatus* but failed to published his designation.

***Colletes fascicularis* COCKERELL 1932**

Colletes fascicularis COCKERELL 1932 - COCKERELL 1932: 121-122.

Holotype (♂) "B.M. Type Hym. 17.a.355 / *Colletes fascicularis* CKLL. Type / (in handwriting): Nieuwoudtville, C.P., Nov. 22, L.O. / T.D.A. Cockerell. B.M. 1936-415" (BMNH).

Colletes martini hololeucus COCKERELL 1947 - COCKERELL 1946(1947): 202-203. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1441 / *Colletes martini hololeucus* CKLL. Type / S. Africa. R.E. Turner. Brit. Mus. 1926-71 / Cape Town, Milnerton, Jan. 1926" (BMNH).

***Colletes faurei* COCKERELL 1946**

Colletes faurei COCKERELL 1946 - COCKERELL 1945(1946): 843-844.

Holotype (♂) "B.M. Type Hym. 17.a.1425 / *Colletes faurei* CKLL. Type / (label with a green frame, in handwriting): S.y., Bf. x., JcF., O.F.S., 8.iv.1928" (BMNH).

Most of the specimen was destroyed by *Anthrenus*. The remaining parts of the head and anterior part of the thorax are insufficient for the identification and characterization of this species. Therefore the taxonomic status of *C. faurei* is not clear.

***Colletes fusconotus* COCKERELL 1919**

Colletes fusconotus COCKERELL 1919 - COCKERELL 1919: 192.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.367 / *Colletes fusconotus* CKLL. Type / Winklespruit, Natal, 31.12.18, C.N. Barker, Ac.No. 2328 / Brit. Mus. 1936-415. T.D.A. Cockerell" (BMNH).

Colletes breviceps FRIESE 1925 - FRIESE 1925: 524-525. **syn. nov.**

Lectotype (♂) (designated here): "Cape, Montagu, X.19 / (in Friese's handwriting): *Colletes breviceps* 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

Colletes bevisi COCKERELL 1932 - COCKERELL 1932: 123. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.344 / *Colletes bevisi* CKLL. Type / (in handwriting): Merebank, Natal, Oct. 16, J.O. / T.D.A. Cockerell Exp. to Africa 1931. Pres. by Imp. Inst. Ent., B.M. 1932-291" (BMNH).

Colletes rugibasis COCKERELL 1936 - COCKERELL 1936: 9. **syn. nov.**

Holotype (♂) "S. Africa, Natal, Amanzimtoti, 16.x.1931 / J. Ogilvie / *Colletes rugibasis* CKLL. Type" (AMNH).

***Colletes genalis* FRIESE 1909**

Colletes genalis FRIESE 1909 - FRIESE 1909a: 122.

Lectotype (♀) (designated here): "SW. Afrika, Grotfontein, 1903, Volkmann / (in Friese's handwriting): *Colletes genalis* 1908 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

Colletes genalis australis COCKERELL 1946 - COCKERELL 1945(1946): 841. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1437 / *Colletes genalis australis* CKLL. Type / Rapenburg, Cape Flats, 1-14.x.1920 / S. Africa. R.E. Turner. 1920-424" (BMNH).

***Colletes gorillarum* COCKERELL 1932**

Colletes gorillarum COCKERELL 1932 - COCKERELL 1932: 119-120.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.353 / *Colletes gorillarum* CKLL. Type / (in handwriting, first word illegible): Tshibinda, 3000 m, J.O. / (in handwriting): Aug. 24 / B.M. 1932-324. T.D.A. Cockerell" (BMNH).

***Colletes hirtibasis* COCKERELL 1936**

Colletes hirtibasis COCKERELL 1936 - COCKERELL 1936: 5.

Holotype (♂) "Cape Province: Ceres. 12-18.ii.1932, A. Mackie / *Colletes hirtibasis* CKLL. Type / (in handwriting, black ink): ac. 34242" (AMNH).

Colletes zonaturus COCKERELL 1946 - COCKERELL 1945(1946): 844-845. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1427 / *Colletes zonaturus* CKLL. Type / Orange Free State, Ficksburg, 26.ii.-1.iii.1932, L. Ogilvie" (BMNH).

***Colletes inconspicuus* KIRBY 1900**

Colletes inconspicua KIRBY 1900 - KIRBY 1900: 23-24.

Lectotype (♀) (designated here): "B.M TYPE HYM. 17.a.341 / (blue label, in handwriting): *Colletes inconspicua* (blue ink), Type, Kirby (black ink), (reverse side): Fig. 15. / (round label): Abdul Kuri, 22.2.99, Socotra, 1900-234." (BMNH).

Colletes pusillus NOSKIEWICZ 1936 - NOSKIEWICZ 1936: 280-282. **syn. nov.**

Lectotype (♂) (designated here): "Ab-del Kari, 1.99. Simony / (in Noskiewicz's handwriting): *Colletes pusillus* NOSK. ♂, det. NOSKIEWICZ / (in handwriting): Typus" (NHMW).
Paralectotype (♀) (designated here): see Lectotype (NHMW).

***Colletes infracognitus* COCKERELL 1937**

Colletes infracognitus COCKERELL 1937 - COCKERELL 1937: 137-138.

Holotype (♀) "B.M. Type Hym. 17.a.347 / *Colletes infracognitus* CKLL. Type / Worcester: Cape Province. Sept. 1928 / S. Africa, R.E. Turner, Brit. Mus. 1928-457" (BMNH).

***Colletes inornatus* COCKERELL 1946**

Colletes inornatus COCKERELL 1946 - COCKERELL 1945(1946): 836.

Holotype (♂) "B.M. Type Hym. 17.a.1415 / *Colletes inornatus* CKLL. Type / S. Africa. R.E. Turner. 1920-424 / Rapenburg. Cape Flats. 1-14.x.1920" (BMNH).

***Colletes latefasciatus* FRIESE 1925**

Colletes latefasciatus FRIESE 1925 - FRIESE 1925: 524.

Lectotype (♀) (designated here): "Capland / (in Friese's handwriting): *Colletes latefasciatus* 1910 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

***Colletes laticaudus* COCKERELL 1946**

Colletes laticaudus COCKERELL 1946 - COCKERELL 1945(1946): 850-851.

Holotype (♀) "B.M. Type Hym. 17.a.1433 / *Colletes laticaudus* CKLL. Type / S. Africa, R.E. Turner, Brit. Mus. 1928-480 / Cape Province, Matjesfontein, 6-15.x.1928" (BMNH).

The description the of this species is based on a male. Obviously the symbols for male and female were mistakenly mixed up by a printer's error, because the shining clypeus and the red hind margins of the first tergites mentioned in the description are definite signs of female bees in this species group.

***Colletes latipes* FRIESE 1915**

Colletes latipes FRIESE 1915 - FRIESE 1915: 277-278.

Lectotype (♂) (designated here): "NO.-Afrika, Abessinien, Harrar 11, Kristensen / (in Friese's handwriting): *Colletes latipes* 1911 Friese det. / (red label): Type / Coll. Friese" (ZMHB). Paralectotypes (2♂♂) (designated here): 1♂ see Lectotype (ZMBH), 1♂ "NO.-Afrika, Abessinien, Harrar 11, Kristensen / Collectio A. Weis. / (red label): Type / (in Friese's handwriting): *Colletes latipes* 1911 Friese det." Type-No. SMFH 2391 (SMFD).

I was not able to locate female specimens that Friese mentions in his description.

***Colletes mackieae* COCKERELL 1932**

Colletes mackieae COCKERELL 1932 - COCKERELL 1932: 122-123.

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.356 / *Colletes mackieae* CKLL. Type / (in handwriting): Top of Van Rhyn's Pass, C.P., Nov. 19, A.M. / B.M. 1932-324. T.D.A. Cockerell" (BMNH).

***Colletes malleatus* COCKERELL 1933**

Colletes malleatus COCKERELL 1933 - COCKERELL 1933: 206-207.

Holotype (♂) "B.M. Type Hym. 17.a.352 / *Colletes ♂ malleatus* CKLL. Type / S. Rhodesia: Vumba, Umtali, 23-26.v.1932. A. Mackie / T.D.A. Cockerell, Exp. to Africa 1931. Pres. by Imp. Inst. Ent. B.M. 1932-291 / see slide coll." (BMNH), 7th sternite and genitalia are preserved in the slide collection.

Colletes latibasis COCKERELL 1936 - COCKERELL 1936: 5-6. **syn. nov.**

Holotype (♂) "(in handwriting, black ink): Cape Town, S. Afr., IV-4-20 / Mich. Bequaert Coll. / *Colletes latibasis* CKLL. Type" (AMNH).

***Colletes malmus* (CAMERON 1905) comb. nov.**

Andrena malma CAMERON 1905 - CAMERON 1905: 241-242.

Lectotype (♀) (designated here): "B.M. Type Hym. 17.a.2747 / (in handwriting, ink): *Andrena malma* Cam. Type, Cape Colony / G.T., Red. June 97, P.M. (illegible) Penther / (reverse side): Albany Museum Grahamstown / 101 / P. Cameron Coll. 1914-110" (BMNH).

Colletes opaciventris FRIESE 1925 - FRIESE 1925: 526. **syn. nov.**

Lectotype (♂) (designated here): "(in handwriting): Dunbrody, 18/3/12 / (in Friese's handwriting): *Colletes opaciventris* ♂ m. FR., 1912 Friese det. / SAM-HYM, B 000126" (SAMC).

***Colletes marleyi* COCKERELL 1919**

Colletes marleyi COCKERELL 1919 - COCKERELL 1919: 193.

Holotype (♂) "B.M. Type Hym. 17.a.368 / *Colletes marleyi* CKLL. Type / (in handwriting): Krantz K., Marley, 7.4.19 / (little pink label): 1239 / T.D.A. Cockerell. B.M. 1936-415" (BMNH).

Colletes transvalensis FRIESE 1925 - FRIESE 1925: 527. **syn. nov.**

Lectotype (♀) (designated here): "Transvaal, Zeerust, 1897, Jensen / (in Friese's handwriting): *Colletes transvalensis* 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

***Colletes michaelis* COCKERELL 1936**

Colletes michaelis COCKERELL 1936 - COCKERELL 1936: 7-8.

Lectotype (♀) (designated here): "Lubumbashi, Katanga, B Cgo, 11.45 S, 27.40 E, 12.I.1921 / Mich. Bequaert Coll. / *Colletes michaelis* CKLL. Cotype" (BMNH).

I was not able to locate the male specimen on which *Colletes michaelis* COCKERELL 1936 was based. A female from Lubumbashi is described by Cockerell, but the male is clearly mentioned as the "type". The female is in the BMNH and labelled as a "Cotype" of *C. michaelis*. This specimen is designated here as the lectotype.

***Colletes microdontus* COCKERELL 1937**

Colletes microdontus COCKERELL 1937 - COCKERELL 1937: 140-141.

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.346 / *Colletes microdontus* CKLL. Type / S.W. Africa, Seeheim. 16.ii.1934. J. Ogilvie. B.M. 1934-148" (BMNH).

***Colletes missionum* COCKERELL 1932**

Colletes missionum COCKERELL 1932 - COCKERELL 1932: 123-124.

Holotype (♂) "B.M. Type Hym. 17.a.357 / *Colletes missionum* CKLL. Type / (in handwriting): Katanga Mission, E'ville, Sept. 17, J.O. / Brit. Mus. 1936-415. T.D.A. Cockerell" (BMNH).

Colletes arnoldi COCKERELL 1946 - COCKERELL 1946: 107. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1447 / *Colletes arnoldi* CKLL. Type / (in handwriting): *Colletes* ♂ *rufitarsis* FR. / Bulawayo, S. Rhodesia, 5.10.1924, Rhodesia Museum" (BMNH).

***Colletes montacuti* COCKERELL 1947**

Colletes montacuti COCKERELL 1947 - COCKERELL 1946(1947): 200-201.

Holotype (♀) "B.M. Type Hym. 17.a.1435 / *Colletes montacuti* CKLL. Type / S. Africa. R.E. Turner, Brit. Mus. 1924-466 / Cape Province, Montagu, 1-21.Oct. 1924" (BMNH).

***Colletes nanellus* COCKERELL 1945**

Colletes nanellus COCKERELL 1945 - COCKERELL 1945: 805-806.

Holotype (♂) "B.M. Type Hym. 17.a.1414 / *Colletes nanellus* CKLL. Type / Sudan, Khor Arbaat Delta, iv-v.1926, H.B. Johnston. / (in handwriting): Khor Arbaat Delta, H.B. Johnston, 28.4.26, visiting Flowers" (BMNH).

Colletes lactescens COCKERELL 1946 - COCKERELL 1945(1946): 845-846. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1428 / *Colletes lactescens* CKLL. Type / Gendettu, W.E. Giffard, 27.2.24, Sudan Govt. / Ent. Coll. C 4841, WTRL" (BMNH).

Colletes nanellus belongs to a group of small species, densely covered with white hair.

Numerous species from this group are described from North Africa and the Near East. All of them, especially the females, are very difficult to identify. In the males the genitalia and the 7th ventral plate are necessary characters for a reliable determination. Since the abdomen of the male is lost and the female type is in a bad condition, the taxonomic status of *C. nanellus* is not clear at the moment.

***Colletes nitidicinctus* COCKERELL 1947**

Colletes nitidicinctus COCKERELL 1947 - COCKERELL 1946(1947): 201-202.

Holotype (♀) "B.M. Type Hym. 17.a.1444 / *Colletes nitidicinctus* CKLL. Type / S. Africa. R.E. Turner. Brit. Mus. 1927-25 / Natal: Van Reenen, Drakensberg. Dec. 1926" (BMNH).

***Colletes obscurus* FRIESE 1925**

Colletes obscurus FRIESE 1925 - FRIESE 1925: 528.

Lectotype (♀) (designated here): "Transvaal, Zeerust, 1897, Jensen / (in Friese's handwriting): *Colletes obscurus* 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

***Colletes ogilviei* COCKERELL 1936**

Colletes ogilviei COCKERELL 1936 - COCKERELL 1936: 8-9.

Holotype (♀) "Natal, National Park, 3-15.iii.1932, J. Ogilvie / *Colletes ogilviei* CKLL. Type" (AMNH).

***Colletes opacus* FRIESE 1925**

Colletes opacus FRIESE 1925 - FRIESE 1925: 526-527.

Lectotype (♂) (designated here): "Acornhoek, E. Transv. / (reverse side): R.W. Turner, Nov. 1918 / (in Friese's handwriting): *Colletes opacicollis* FR. ♂ [sic] 1921 Friese det. / (in handwriting): *Colletes ? opacus* FR. ♂ (ditto) / SAM-HYM, B000142" (SAMC).

Colletes bukavanus COCKERELL 1936 - COCKERELL 1936: 3-4. **syn. nov.**

Holotype (♂) "Bukavu, 10.viii.1931, Miss A. Mackie / Belgian Congo / *Colletes bukavanus* CKLL. Type" (AMNH).

Colletes montis COCKERELL 1946 - COCKERELL 1945(1946): 837. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1416 / *Colletes montis* CKLL. Type / Mt. Ruwenzori, Congo, 0°30'N; 29°50'E., 1400 m, 5-VI-14" (BMNH).

Colletes beniensis COCKERELL 1946 - COCKERELL 1946: 108. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1443 / *Colletes beniensis* CKLL. Type / Kengele near Beni, Congo, 29°30'E; 0°30'N. 27-IV-1914" (BMNH).

Neither in the ZMHB nor in the SAMC could specimens originally labelled by Friese as *C. opacus* be located. But the short description and type locality of the above mentioned male type specimen agrees with the information given in the original description of *C. opacus*. Obviously Friese erroneously labelled the specimen choosen here for the lectotype of *C. opacus* as *C. opacicollis*. This assumption is supported by the notes of COCKERELL (1937: 138-139) about *C. opacicollis* and by the fact that the specimen bears a supplementary handwritten label "*Colletes opacus*".

***Colletes perezi* MORICE 1904**

Colletes perezi MORICE 1904 - MORICE 1904: 45.

Colletes resedae COCKERELL 1934 - COCKERELL 1934: 64-65. **syn. nov.**

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.343 / *Colletes resedae* CKLL. Type / Khor Arbat Delta, H.B. Johnston, 16.4.26, on flowers of Reseda, Sudan Govt. / Pres. by Imp. Inst. Ent. B.M. 1933-582 / Ent. Coll. C 4906, WTRL" (BMNH).

Colletes phenax COCKERELL 1946

Colletes phenax COCKERELL 1946 - COCKERELL 1945(1946): 847.

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.1429 / *Colletes phenax* CKLL. Type / Mossel Bay. Cape Province. Dec. 1921 / S. Africa. R.E. Turner. Brit. Mus. 1922-25" (BMNH).

Colletes peropacus COCKERELL 1946 - COCKERELL 1946: 107. **syn. nov.**

Holotype (♂) "B.M. Type Hym. 17.a.1438 / *Colletes peropacus* CKLL. Type / S. Africa. R.E. Turner. Brit. Mus. 1922-25 / Mossel Bay, Cape Province. Dec. 1921" (BMNH).

Colletes plebeius COCKERELL 1946

Colletes plebeius COCKERELL 1946 - COCKERELL 1945(1946): 849.

Holotype (♂) "B.M. Type Hym. 17.a.1431 / *Colletes plebeius* CKLL. Type / Mossel Bay, Cape Province. Dec. 1921 / S. Africa. R.E. Turner. Brit. Mus 1922-25" (BMNH).

Colletes reginae COCKERELL 1946

Colletes reginae COCKERELL 1946 - COCKERELL 1945(1946): 840-841.

Holotype (♀) "B.M. Type Hym. 17.a.1421 / *Colletes reginae* CKLL. Type / S. Africa: R.E. Turner, Brit. Mus. 1923-140 / Queenstown, Cape Province, 3.500 ft., 16.i.-10.ii.1923" (BMNH).

The specimen labelled as the type of *C. reginae* differs from the description in two important points. Cockerell mentions that the "clypeus ... with a broad smooth channel in middle (a unique feature!)" and "disc of mesonotum with very large, well separated punctures". Neither is the clypeus nor the mesonotum sculptured in this way. The clypeus and the mesonotum are densely covered with moderately sized punctures. I suspect that Cockerell confounded the description of *C. reginae* with another species, probably of a different genus. I have never seen an African *Colletes* with those peculiar features.

Colletes rothschildi VACHAL 1909

Colletes rothschildi VACHAL 1909 - VACHAL 1909: 534.

Holotype (♀) "(blue label): Museum Paris, Afrique Orient. Angl., Sud du Lac Rodolphe, Entre le chemin de fer et le Lac, Maurice de Rothschild, 1905 / (red label) Holotype / (in Vachal's handwriting): *Colletes Rothschildi* [sic] Vach., No. 12" (MNHN).

Colletes rubrovittatus COCKERELL 1946

Colletes rubrovittatus COCKERELL 1946 - COCKERELL 1946: 111-112.

Holotype (♂) "B.M. Type Hym. 17.a.1440 / *Colletes rubrovittatus* CKLL. Type / Cape Province, Ceres, March 1925 / S. Africa. R.E. Turner. Brit. Mus. 1922-25" (BMNH).

Colletes ruficollis FRIESE 1925

Colletes ruficollis FRIESE 1925 - FRIESE 1925: 528-529.

Lectotype (♀) (designated here): "Grootfontein, S.W. Protect. / (reverse side): M. Lightfood, Dec. 1918 / (in Friese's handwriting): *Colletes ruficollis*, 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

Colletes lineolatus COCKERELL 1946 - COCKERELL 1946: 110-111. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1439 / *Colletes lineolatus* CKLL. Type / S.W. Africa. R.E. Turner. Brit. Mus. 1930-113 / Aus, Dec. 1929" (BMNH).

Friese mentions Volkmann as the collector of *C. ruficollis* in his description, but originally M. Lightfood collected the female.

***Colletes rufitarsis* FRIESE 1909**

Colletes rufitarsis FRIESE 1909 - FRIESE 1909b: 121.

Lectotype (♂) (designated here): "Kilimandj., Sjöstedt / Kibonoto, kulturz. [sic] / 5 maj / (part of label cut off): 1908 Friese det." (NHRS). Paralectotypes (3♂♂, 1♀) (designated here): 1♂ except for the collecting date ("12 maj") identical to Lectotype (NHRS), 1♂ "Kilimandjaro, Sjöstedt. 1905-6 / Kibonoto 1000 - 1300 m / (part of label cut off): 1908 Friese det." (NHRS), 1♀ "Kilimandj., Sjöstedt / Kibonoto, (crossed out with a pencil): 1300 - 1900 m / 5 jan. / (part of label cut off): 1908 Friese det." (NHRS), 1♂ "Kilimandjaro, Sjöstedt. 1905-6 / Kibonoto 1300 - 1900 m / 7. maj / (in Friese's handwriting): *Colletes rufitarsis* 1908 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

Colletes ruwenzoricus COCKERELL 1936 - COCKERELL 1936: 9-10. **syn. nov.**

Holotype (♀) "Mt. Ruwenzori, Congo, 0°30'N; 29°50'E, 1400 m, 5.VI.14 / *Colletes ruwenzoricus* CKLL. Type" (AMNH).

Colletes kivuicola COCKERELL 1943 - COCKERELL 1943: 571. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1412 / *Colletes kivuicola* CKLL. Type / (in handwriting) Kabango (Kivu), Belg. Congo / 4-XI-1914, 1.800 m" (BMNH).

Colletes andersoni COCKERELL 1946 - COCKERELL 1946(1946): 844. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.1426 / *Colletes andersoni* CKLL. Type / Brit. E. Africa, Kabele, 6,000 ft., 20.XII.1918, T.J. Anderson" (BMNH).

One of the two males of *C. rufitarsis* in the type series located in ZMHB belongs to a different species.

***Colletes rufotibialis* FRIESE 1909**

Colletes rufotibialis FRIESE 1909 - FRIESE 1909a: 121.

Lectotype (♂) (designated here): "SW. Afrika, Grotfontein, 1903, Volkmann / (in Friese's handwriting): *Colletes rufotibialis* 1908 Friese det. / (red label): Type / Coll. Friese" (ZMHB).

***Colletes salsolae* COCKERELL 1934**

Colletes salsolae COCKERELL 1934 - COCKERELL 1934: 65.

Holotype (♀) "B.M. Type Hym. 17.a.342 / *Colletes salsolae* CKLL. Type / Khor Garar Abyed, W. Ruttledge, 26.3.26, visiting flowers of Salsole, Sudan Govt. / Ent. Coll. C 4905, WTRL / Pres. by Imp. Inst. Ent., B.M. 1933-582" (BMNH).

Colletes salsolae belongs to a diverse group of small species, densely covered with white hair. Numerous species from this group are described from North Africa and the Near East. All of them, especially the females, are very difficult to identify. Since the investigation of this species-group is in its initial stage, the taxonomic status of *C. salsolae* is not clear at the moment.

***Colletes schultzei* FRIESE 1909**

Colletes schultzei FRIESE 1909 - FRIESE 1909a: 122.

Lectotype (♂) (designated here): "Kl. Namaland, Steinkopf, L. Schultze S. / (in Friese's handwriting): *Colletes schultzei* 1908 Friese det. / (red label): Type / Coll. Friese" (ZMHB).
Paralectotypes (2♂♂) (designated here): see Lectotype (ZMBH).

The original type series in the ZMHB consisted of 10 specimens belonging to three different species. The three above mentioned specimens belong to a single species and are chosen as types.

***Colletes seminitens* COCKERELL 1919**

Colletes seminitens COCKERELL 1919 - COCKERELL 1919: 193.

Holotype (♀) "B.M. Type Hym. 17.a.369 / *Colletes seminitens* CKLL. Type / E.C. Chubb, Durban, 11.3.14, Ac.No. 2047 / B.M. 1936-415, T.D.A. Cockerell" (BMNH).

***Colletes somereni* COCKERELL 1947**

Colletes somereni COCKERELL 1947 - COCKERELL 1946(1947): 199-200.

Holotype (♀) "B.M. Type Hym. 17.a.1434 / *Colletes somereni* CKLL. Type / Dr. van Someren, Nairobi, Mch. 1930" (BMNH).

***Colletes sordescens* COCKERELL 1933**

Colletes sordescens COCKERELL 1933 - COCKERELL 1933: 205.

Holotype (♂) "B.M. Type Hym. 17.a.350 / *Colletes sordescens* ♂ CKLL. Type / Natal: National Park, 3-15.iii.1932, J. Ogilvie / T.D.A. Cockerell, Exp. to Africa 1931. Pres. by Imp. Inst. Ent. B.M. 1932-291" (BMNH).

***Colletes sororcula* COCKERELL 1936**

Colletes sororcula COCKERELL 1936 - COCKERELL 1936: 10.

Holotype (♀) "Cape Province: Ceres, 12-18.ii.1932, A. Mackie / *Colletes sororcula* CKLL. Type" (AMNH).

***Colletes stellatus* COCKERELL 1946**

Colletes stellatus COCKERELL 1946 - COCKERELL 1945(1946): 842.

Holotype (♀) "B.M. Type Hym. 17.a.1423 / *Colletes stellatus* CKLL. Type / Stellenbosch, 17.9.23, C.J. Joubert / (in handwriting): *Colletes* sp." (BMNH).

***Colletes testaceipes* FRIESE 1909**

Colletes testaceipes FRIESE 1909 - FRIESE 1909a: 120-121.

Lectotype (♂) (designated here): "Prince of Wales-Bay, L. Schultze S. / (red label): Type / (in Friese's handwriting): *Colletes testaceipes* 1908 Friese det. / (folded label): L. Schultze. Süd-Afrika, 1903, Mai, Pr. of Wales Bay, No. 135, Konserv. Alk. 94" (ZMHB). Paralectotype (♀) (designated here): "SW. Afrika, Grotfontein, 1903, Volkmann / (in Friese's handwriting): *Colletes testaceipes* 1908 Friese det. / (red label): Type / Coll. Friese" (ZMBH).

***Colletes tinctulus* COCKERELL 1937 stat. nov.**

Colletes bevisi tinctula COCKERELL 1937 - COCKERELL 1937: 140.

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.345 / *Colletes bevisi tinctula* CKLL. Type / S.W. Africa: Cape Province, Bot River, 11.xi.1933, L. Ogilvie / Brit. Mus. 1934-78" (BMNH).

Colletes albifrons COCKERELL 1946 - COCKERELL 1946: 112-113. **syn. nov.**

Lectotype (♂) (designated here): "B.M. Type Hym. 17.a.1442 / *Colletes albifrons* CKLL. Type / Ceres, Cape Province, Nov. 1920 / S. Africa. R.E. Turner. Brit. Mus. 1920-497" (BMNH).

***Colletes tulbaghensis* nom. nov.**

Colletes cinereus FRIESE 1925 (nec GEOFFROY in FOURCROY 1785) - FRIESE 1925: 525-526.

Lectotype (♂) (designated here): "Gt. Wint-hoek, Tulbagh, 4.200 ft / (reverse side): April 1916, R.M.L. / (in Friese's handwriting): *Colletes cinctellus* [sic] 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB). Paralectotypes (2♂♂) (designated here): "Gt. Wint-hoek, Tulbagh, 4.500 ft / (reverse side): April 1916, R.M.L. / (in Friese's handwriting): *Colletes claripes* ♂ Fr. [sic] 1921 Friese det. / (in handwriting): *Colletes cinereus* / SAM-HYM, B 000114" and: "Gt. Wint-hoek, Tulbagh, 4.200 ft / (reverse side): April 1916, R.M.L. / (in Friese's handwriting): *Colletes claripes* ♂ Fr. [sic] 1921 Friese det. / SAM-HYM, B 000130" (SAMC).

Neither in the ZMHB nor in the SAMC could specimens originally labelled by Friese as *C. cinereus* be located. But the short description and type locality of the above mentioned specimens agree with the information given in the original description of *C. cinereus*. Obviously Friese erroneously labelled the specimen chosen here as the lectotype as *C. cinctellus* and the paralectotypes as *C. cinereus*. This assumption is supported by the fact that the male in the ZMHB was the only specimen pinned next to the label "*C. cinereus*" in the box. Additionally one of the males in the SAMC bears a supplementary handwritten label "*Colletes cinereus*", added by anonymous.

Colletes cinereus FRIESE described from South Africa is a junior secondary homonym of *Apis cinerea* GEOFFROY in FOURCROY (1785: 444), which is a junior synonym of the transpalaeartic *Colletes cunicularius* (LINNAEUS 1761). While no known synonym of the junior homonym *Colletes cinereus* FRIESE is available, the new replacement name *Colletes tulbaghensis* nom. nov. is proposed following article 60(c) ICZN. The species is named after the type locality Tulbagh in South Africa.

***Colletes zuluensis* FRIESE 1925**

Colletes zuluensis FRIESE 1925 - FRIESE 1925: 528.

Lectotype (♂) (designated here): "Mfongosi, Zulu L., W.E. Jones / (reverse side): Feb. 1914 / (in Friese's handwriting): *Colletes zuluensis* 1921 Friese det. / (red label): Type / Coll. Friese" (ZMHB). Paralectotypes (♂♀) (designated here): see Lectotype, except for label three: "SAM-HYM, B 000118" (SAMC).

Colletes callaspis COCKERELL 1936 - COCKERELL 1936: 4-5. **syn. nov.**

Holotype (♀) "S. Rhodesia, Matopo Hills, 17-30.iv.1932, Mrs. L. Ogilvie / *Colletes callaspis* CKLL. Type" (AMNH).

Colletes turneri COCKERELL 1937 - COCKERELL 1937: 136-137. **syn. nov.**

Holotype (♀) "B.M. Type Hym. 17.a.340 / *Colletes turneri* CKLL. Type / E. Cape Prov., Katberg, 1-10.ii.1933 / S. Africa. R.E. Turner, Brit. Mus. 1933-139" (BMNH).

Unidentified afrotropical species

Colletes opacicollis FRIESE 1909

Colletes opacicollis FRIESE 1909 - FRIESE 1909a: 122-123.

I was not able to locate a male or a female of the type series from "Kapland (Cradock, WARTMANN leg.)". Specimens from other localities identified by Friese in 1921 as *C. opacicollis* are in the ZMHB. Since Friese frequently misidentified afrotropical *Colletes* species, I was not able to make any conclusions about the species he described in 1909 as *C. opacicollis*.

Colletes parafodiens FRIESE 1925

Colletes parafodiens FRIESE 1925 - FRIESE 1925: 529.

I was not able to locate the female specimen on which *C. parafodiens* is based, or other specimens of this species.

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Zusammenfassung

Typenmaterial von 90 afrotropischen und 13 orientalischen Arten der Bienengattung *Colletes* wurde untersucht und Lectotypen festgelegt. Sie gehören zu 56 afrotropischen und 8 orientalischen Arten. Die Typen von *C. opacicollis* FRIESE 1909 und *C. parafodiens* FRIESE 1925 aus dem südlichen Afrika konnten nicht ausfindig gemacht werden und sind wahrscheinlich verschollen.

Colletes tulbaghensis **nom. nov.** wird als neuer Name für *Colletes cinereus* FRIESE 1925 vorgeschlagen, da er ein jüngeres sekundäres Homonym ist von *Apis cinerea* GEOFFROY in FOURCROY 1785 (= *Colletes cunicularius* [LINNAEUS 1761]).

Die folgenden Namen werden synonymisiert: *C. brevitectus* COCKERELL 1922 **syn. nov.** = *C. annulicornis* MORAWITZ 1876; *C. dentatus* CAMERON 1898 **syn. nov.** = *C. dudgeonii* BINGHAM 1897; *C. nursei* CAMERON 1907 **syn. nov.** und *C. deesensis* COCKERELL 1922 **syn. nov.** = *C. lacunatus* DOURS 1872; *C. saevissimus* (CAMERON 1897) **comb. nov., syn. nov.** und *C. phaedra* (CAMERON 1897) **comb. nov., syn. nov.** = *C. reticulatus* (CAMERON 1897) **comb. nov.**; *C. honoratus* COCKERELL 1922 **syn. nov.** = *C. sodalis* (CAMERON 1897) **comb. nov.**; *C. subrufipes* COCKERELL 1946 **syn. nov.** und *C. odontogaster* COCKERELL 1946 **syn. nov.** = *C. antecessus* COCKERELL 1932; *C. volkmanni* FRIESE 1909 **syn. nov.**, *C. martini* COCKERELL 1919 **syn. nov.**, *C. opacigenalis* FRIESE 1925 **syn. nov.**, *C. comptoni* COCKERELL 1932 **syn. nov.**, *C. politulus* COCKERELL 1946 **syn. nov.** und *C. mediolucens* COCKERELL 1946 **syn. nov.** = *C. capensis* CAMERON 1905; *C. rufipennis* COCKERELL 1946 **syn. nov.** und *C. mitescens* COCKERELL 1933 **syn. nov.** = *C. cinctellus* FRIESE 1925; *C. glaucescens* COCKERELL 1932 **syn. nov.**, *C. suprafuscus* COCKERELL 1946 **syn. nov.** und *C. drakensbergensis* COCKERELL 1947 **syn. nov.** = *C. claripes* FRIESE 1925; *C. hirsutissimus* COCKERELL 1946 **syn. nov.** = *C. fasciatus* SMITH 1853; *C. martini hololeucus* COCKERELL 1947 **syn. nov.** = *C. fascicularis* COCKERELL 1932; *C. breviceps* FRIESE

1925 syn. nov., *C. bevisi* COCKERELL 1932 syn. nov. und *C. rugibasis* COCKERELL 1936 syn. nov. = *C. fusconotus* COCKERELL 1919; *C. genalis australis* COCKERELL 1946 syn. nov. = *C. genalis* FRIESE 1909; *C. zonaturus* COCKERELL 1946 syn. nov. = *C. hirtibasis* COCKERELL 1936; *C. pusillus* NOSKIEWICZ 1936 syn. nov. = *C. inconspicuus* KIRBY 1900; *C. latibasis* COCKERELL 1936 syn. nov. = *C. malleatus* COCKERELL 1933; *C. opaciventris* FRIESE 1925 syn. nov. = *C. malmus* (CAMERON 1905) comb. nov.; *C. transvalensis* FRIESE 1925 syn. nov. = *C. marleyi* COCKERELL 1919; *C. arnoldi* COCKERELL 1946 syn. nov. = *C. missionum* COCKERELL 1932; *C. lactescens* COCKERELL 1946 syn. nov. = *C. nanellus* COCKERELL 1945; *C. resedae* COCKERELL 1934 syn. nov. = *C. perezi* MORICE 1904; *C. peropacus* COCKERELL 1946 syn. nov. = *C. phenax* COCKERELL 1946; *C. lineolatus* COCKERELL 1946 syn. nov. = *C. ruficollis* FRIESE 1925; *C. ruwenzoricus* COCKERELL 1936 syn. nov., *C. kivuicola* COCKERELL 1943 syn. nov. und *C. andersoni* COCKERELL 1946 syn. nov. = *C. rufitarsis* FRIESE 1909; *C. albifrons* COCKERELL 1946 syn. nov. = *C. tinctulus* COCKERELL 1937 stat. nov.; *C. bukavanus* COCKERELL 1936 syn. nov., *C. montis* COCKERELL 1946 syn. nov. und *C. beniensis* COCKERELL 1946 syn. nov. = *C. opacus* FRIESE 1925; *C. callaspis* COCKERELL 1936 syn. nov. und *C. turneri* COCKERELL 1937 syn. nov. = *C. zuluensis* FRIESE 1925;

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